Honeywell | 1969 | Annual Report

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Honorary Chairman

James H. Binger
Chairman

Stephen F. Keating
President

Charles L. Davis
Executive Vice President

Bruce B. Dayton
Chairman,
Dayton Hudson Corporation

Walter W. Finke
Chairman,
Dictaphone Corporation

Paul S. Gerot
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The Pillsbury Company

Neil J. McKinnon
Chairman,
Canadian Imperial Bank of Commerce

Eugene J. McNeely
Retired President,
American Telephone & Telegraph Co.

Donald W. Nyrop
President,
Northwest Airlines, Inc.

L. H. Schoenhofen
President, Marcor Inc.
Chairman, Container Corporation of America

Clarence W. Spangle
Vice President

Edson W. Spencer
Executive Vice President

John J. Wilson
Secretary of the Corporation,
Massachusetts Institute of Technology

Paul B. Wishart
Chairman,
Finance Committee

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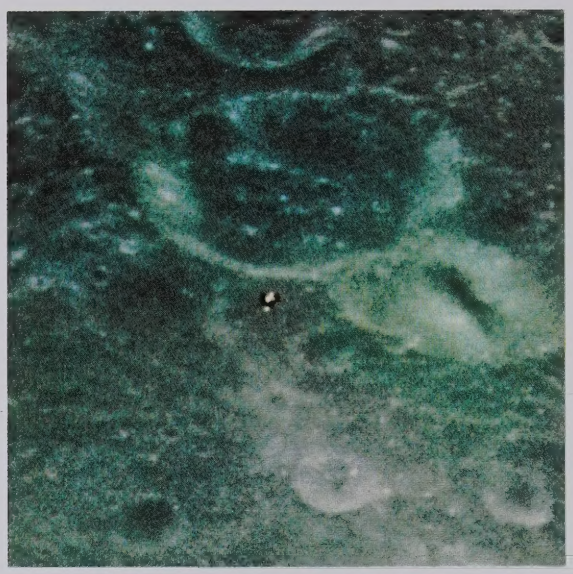
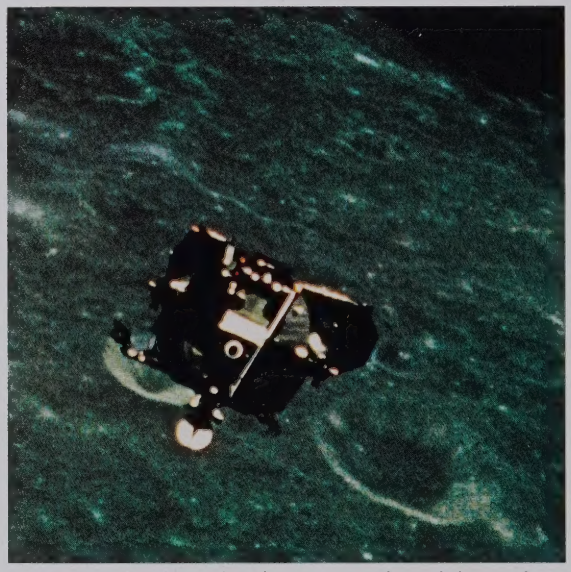
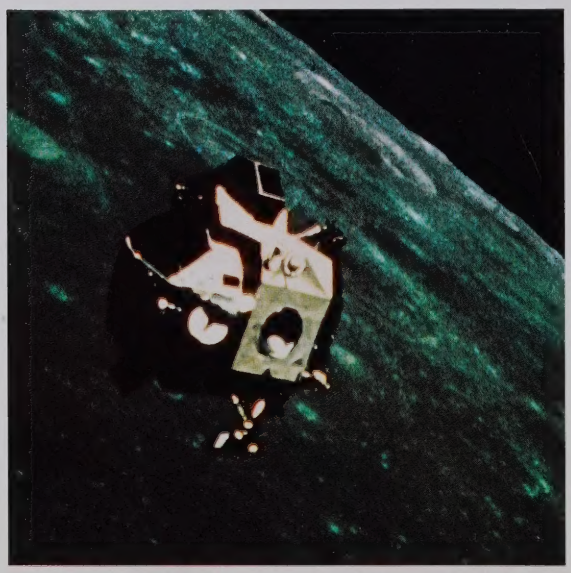
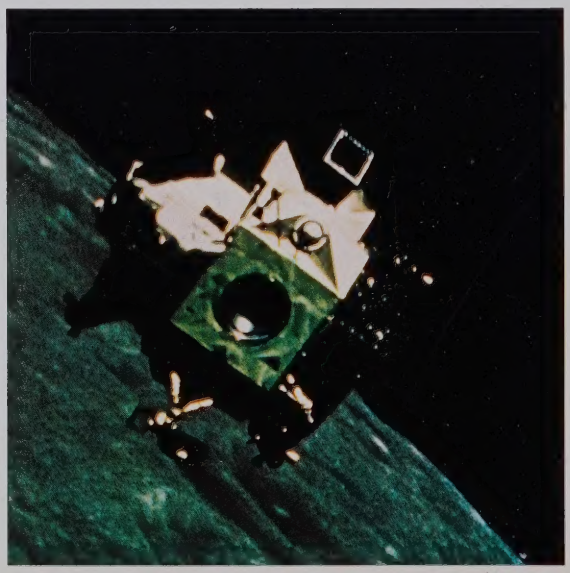


The Apollo lunar module redocks with the command module at the climax of man's first landing on the moon, July 20, 1969. Honeywell provided stabilization and control systems for the command module, cockpit instrumentation for the lunar module and fuel probes on the second stage of the Saturn V space vehicle.







Financial Highlights

	1969	1968
Sales, service and rental income	$1,425,993,204	$1,281,299,990
Income before income taxes	131,522,426	107,164,560
Provision for income taxes	69,041,000	56,620,000
Net income	62,481,426	50,544,560
Net income per share (based on average number of shares outstanding)	$4.15	$3.41
Income before taxes as a percent of sales	9.2%	8.3%
Net income as a percent of sales	4.4%	3.9%
Dividends paid per share of common stock	$1.17½	$1.10
Average number of common shares outstanding	15,042,223	14,719,311
Additions to property, plant and equipment	$ 196,677,974	$ 138,322,266
Depreciation and amortization	83,476,286	68,734,814
Number of employees	81,520	74,483
Floor space used (sq. ft.)	16,275,000	14,943,000

Worldwide Sales by Major Product Lines

The contribution to 1969 sales of each major product line on a worldwide basis is shown at right compared with the previous year:

(Dollars in millions)	1969 Amount	1969 % of Total	1968 Amount	1968 % of Total
Automation Systems and Controls for Homes and Buildings	$ 329	23%	$ 292	23%
Automation Systems and Controls for Industry	239	17	227	18
Aerospace and Defense	482	34	478	37
Computers and Communications	351	24	265	21
Photographic Products	25	2	19	1
TOTAL	$1,426	100%	$1,281	100%

Left to right S. F. Keating, President; J. H. Binger, Chairman; C. L. Davis and E. W. Spencer, Executive Vice Presidents.

To the Stockholders of Honeywell Inc. —1969

We had an excellent year in 1969. Both volume and profits were up substantially, but it was particularly gratifying that earnings grew at a rate much faster than sales.

The balance of our business shifted somewhat in 1969. The building controls and industrial segments continued to account for about the same percentage of our total business. Computer and communications gained four percentage points, while aerospace and defense dropped three. Each of these four main product groupings is discussed in detail in the Operations of the Year section that follows on page 17.

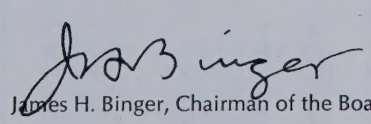
Of special interest is our computer and communications operation, which continues to be the fastest growing area of the business. Sales and rental revenues increased 32 percent over 1968. Its domestic operations have been profitable for four years, and overseas for two. Profit margins are now approaching the company average. With high backlogs and increased rental income we expect its growth in volume and profitability to continue in the year ahead.

A number of significant organizational changes were made in 1969. With the announcement at year end of the creation of three new divisions in our Computer and Communications Group, we now have a total of eighteen integrated divisions organized into four groups, each headed by a group executive.

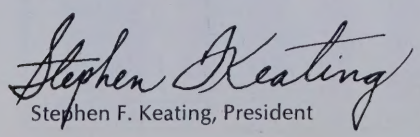
In October the Board of Directors elected two executive vice presidents who work closely with the president in operating the business. Their election was prompted not only by the growing size and complexity of the business, but more importantly by the opportunities we see ahead. One of the executive vice presidents, Charles L. Davis, concerns himself primarily with the computer and communications and the aerospace and defense activities. The other, Edson W. Spencer, is primarily involved in the areas of home and building markets, industrial products, photographic products and international markets. He was elected to the board of directors in April, 1969. Clarence W. Spangle, Vice President and newly elected Group Executive of the Computer and Communications Group was also elected a Director in October, 1969.

We are very much aware of the troubled business climate that seems to be in the offing, but we entered 1970 with record backlogs in every area of our business except aerospace and defense. And because of the diversified nature of our business and because some of our markets continue to grow despite the economic situation, we feel we can show continued progress in 1970.

For the Board of Directors



James H. Binger, Chairman of the Board



Stephen F. Keating, President

1969 Financial Review

Sales in 1969 increased 11.3% from 1968, whereas net income was up 23.6%. Income before taxes as a percent of sales was 9.2% as compared with 8.3% in the previous year.

Income tax provisions as a percent of pre-tax income were 52.5%, substantially the same as 1968. The investment tax credit in 1969 amounted to only $1,031,000, as compared with $1,811,000 in 1968. This reduction was approximately offset by a modest decline in the effective tax rates for foreign operations.

Earnings per share were $4.15, an increase of 21.7% from last year, based on the average number of shares outstanding. There would not be any material dilution of earnings per share, assuming a full conversion of the 5% debentures of 1983, as well as the exercise of all outstanding stock options.

During 1969, 331,094 shares were issued under the company's Employee, Restricted, and Qualified Stock Option Plans. Also $3,869,000 of the 5% convertible debentures were converted into 37,436 shares during the year. At year end a total of 15,237,508 common shares were outstanding.

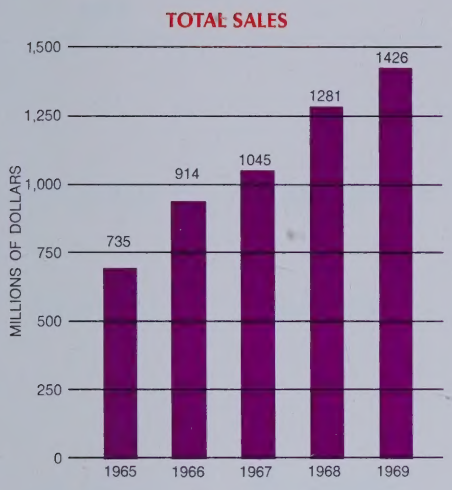
Our worldwide employment grew to 81,520 during 1969, compared with 74,483 at the end of 1968. Salaries and wages totaled $631 million, up 14.3% over the previous year.

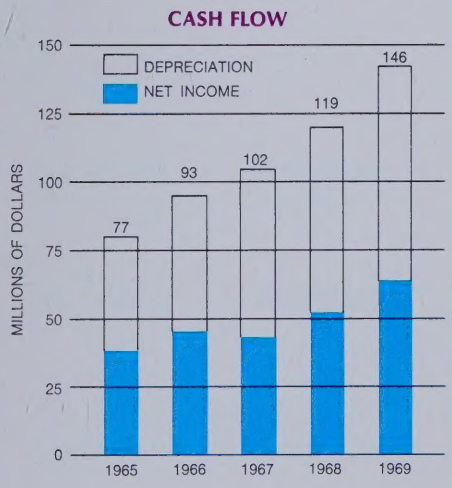
Funds internally generated from net income and depreciation and amortization continued to increase, amounting to $145,957,712 in 1969 compared to $119,279,374 in 1968.

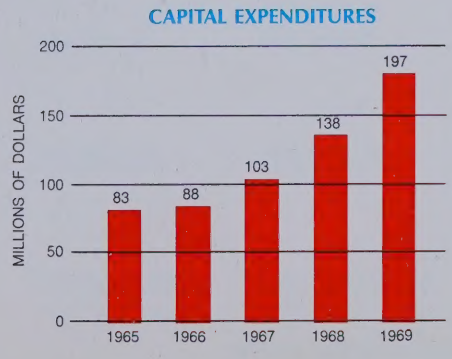
Effective with the June 16 dividend, the quarterly dividend rate was increased to 30 cents per share. Dividends paid in 1969 were $1.17½ per share, or a total of $17,670,388.

Requirements for capital expenditures and increased working capital also continued to rise, consistent with the expansion of our business, par-

SOURCE OF FUNDS	1969	1968
Net income	$ 62,481,426	$ 50,544,560
Depreciation and amortization	83,476,286	68,734,814
Income taxes deferred—net	6,200,000	9,408,000
Deferred rental income	66,660,090	13,656,268
Stock options exercised	23,827,210	1,710,207
Subtotal	242,645,012	144,053,849
Long-term borrowings	35,459,000	35,638,000
Total	278,104,012	179,691,849
APPLICATION OF FUNDS		
Expenditures for plant and equipment	196,677,974	138,322,266
Retirement of long-term debt	10,150,000	7,043,000
Dividends paid	17,670,388	16,546,177
Investment in non-consolidated finance subsidiaries	11,574,304	582,445
Other	4,703,594	2,234,649
Total	240,776,260	164,728,537
Net increase in working capital during the year	$ 37,327,752	$ 14,963,312







ticularly the computer business. During the year, the company invested $196,677,974 in plant expansion, tooling and equipment, including EDP equipment for rental to customers, as compared with $138,322,266 in 1968. The company purchased and retired $10,150,000 of long-term debt during the year to meet future sinking fund requirements.

The company continued to finance its domestic operations by selling portions of future rentals arising from computer transactions to Honeywell Finance Inc. In addition we established a non-consolidated finance company in Canada, Honeywell Holdings Limited, which operates in substantially the same manner. At year-end a total of $109,633,555 of future rental income had been sold to these non-consolidated subsidiaries. Use of the finance companies enables us to finance lease contracts by borrowing against future rental receivables on an appropriately leveraged basis. The transactions with the finance companies have no effect, however, on our income statements.

In order to provide a larger borrowing base, the company increased its investment in Honeywell Finance Inc. by $10 million during 1969. Concurrently, arrangements were made to increase its short-term lines of credit to $90 million. The combined balance sheet of the finance companies is included on Page 13.

Financing for the company's overseas operations continued to be provided largely by short-term borrowings of foreign currencies. At the end of 1969 these borrowings amounted to $80,746,000 as compared with $52,193,750 at the end of 1968. Backing up this short-term debt were $47,095,000 of temporary investments, representing a portion of the proceeds of long-term funds borrowed in Europe by the company in the last four years. During 1969, a 15-year, 5¾% bond issue was successfully placed on the Swiss capital market for the amount of 60 million Swiss francs ($13,722,000).

During 1969, gross interest expense of Honeywell Inc. and consolidated subsidiaries totaled $26,525,758. Interest income from time deposits and other temporary investments was $8,221,530. Net interest costs, therefore, were $18,304,228, up from $13,879,570 in 1968.

The devaluation of the French franc and the revaluation of the West German mark had no significant effect on our operations. We were able to comply with the mandatory balance of payments program without limiting our growth or unduly straining our overseas financial resources.

During the year we made application for the company's shares to be listed on several of the Swiss stock exchanges and we intend to make application for similar listing on other European stock exchanges, as one measure to encourage more international ownership of the company.

Balance Sheet

Honeywell Inc. and Consolidated Subsidiaries December 31, 1969 and 1968

Assets

	1969	1968
Current Assets		
Cash	$ 19,898,225	$ 10,912,374
Time deposits	47,095,000	56,314,000
Receivables (less allowance for doubtful accounts, 1969, $2,623,000; 1968, $1,739,000)	270,576,179	216,124,304
Receivable from non-consolidated finance subsidiaries	14,210,301	25,397,378
Inventories — at lower of cost, on a first-in, first-out basis, or market (less progress billings on uncompleted contracts, 1969, $55,079,204; 1968, $63,460,059)	294,229,447	232,122,724
Total current assets	646,009,152	540,870,780
Investment in and advances to non-consolidated finance subsidiaries	27,222,602	15,648,298
Property, Plant and Equipment At cost less accumulated depreciation and amortization, 1969, $237,290,580; 1968, $188,196,584	516,104,581	402,902,893
Trademarks and Goodwill	7,646,555	8,788,465
Deferred Charges and Other Assets	25,028,333	19,188,001
Total	$1,222,011,223	$987,398,437

See accompanying Notes to Financial Statements (Pages 15-16).

Liabilities

	1969	1968
Current Liabilities		
Accounts payable	$ 92,469,360	$ 77,025,622
Notes payable	80,746,000	52,193,750
Accrued liabilities other than income taxes	55,856,909	50,398,936
Income taxes	66,155,030	47,798,371
Total current liabilities	295,227,299	227,416,679
Long-Term Debt	271,510,000	250,070,000
Deferred Income Taxes	51,525,000	45,325,000
Deferred Rental Income	109,633,555	42,973,465
Stockholders' Equity		
Preference stock — (authorized, 750,000 shares of $100 par value each; outstanding, none)		
Common stock — $1.50 par value each (authorized, 20,000,000 shares; outstanding, 1969, 15,237,508 shares; 1968, 14,868,978 shares)	22,856,262	22,303,467
Additional paid-in capital	131,500,358	104,362,115
Retained earnings (1969, $128,551,744 unrestricted under long-term debt agreements)	339,758,749	294,947,711
Total stockholders' equity	494,115,369	421,613,293
Total	$1,222,011,223	$987,398,437

Summary of Income

Honeywell Inc. and Consolidated Subsidiaries For The Years Ended December 31, 1969 and 1968

	1969	1968
Sales and Other Income		
Sales, service and rental income	$1,425,993,204	$1,281,299,990
Other income (less miscellaneous income charges)	9,106,766	6,827,706
Total	1,435,099,970	1,288,127,696
Cost of Goods Sold and Other Expenses including depreciation and amortization — 1969, $83,476,286; 1968, $68,734,814		
Cost of goods sold	984,761,225	920,968,833
Selling, general and administrative expenses	300,512,091	246,114,733
Interest—net	18,304,228	13,879,570
Total	1,303,577,544	1,180,963,136
Income Before Income Taxes	131,522,426	107,164,560
Provision for Federal, State and Foreign Income Taxes	69,041,000	56,620,000
Net Income	$ 62,481,426	$ 50,544,560
Net Income Per Share (based on average number of shares outstanding)	$4.15	$3.41

See accompanying Notes to Financial Statements (Pages 15-16).

Summary of Retained Earnings

Honeywell Inc. and Consolidated Subsidiaries For The Years Ended December 31, 1969 and 1968

	1969	1968
Retained Earnings		
Balance, January 1	$294,947,711	$260,949,328
Net income	62,481,426	50,544,560
Total	357,429,137	311,493,888
Dividends		
Preference — 3% convertible		340,249
Common — 1969, $1.17½ per share; 1968, $1.10 per share	17,670,388	16,205,928
Total	17,670,388	16,546,177
Balance, December 31	$339,758,749	$294,947,711

NON-CONSOLIDATED FINANCE SUBSIDIARIES

Combined Balance Sheet / December 31, 1969 and 1968

	1969	1968
ASSETS		
Cash	$ 1,000,938	$ 118,528
Receivables (less allowance for losses, 1969, $5,728,937; 1968, $2,695,296)	117,519,088	51,264,824
Other assets		128,417
TOTAL	$118,520,026	$51,511,769
LIABILITIES		
Notes payable	$ 75,241,000	$ 9,870,000
Due to Honeywell Inc.	14,210,301	25,397,378
Other liabilities	1,846,123	596,093
Subordinated debt due Honeywell Inc.	17,500,000	7,500,000
Stockholder's equity	9,722,602	8,148,298
TOTAL	$118,520,026	$51,511,769

1945/1969 Honeywell Record of Operations

Year	Sales (Millions)	Provision For Income Taxes (Millions)	Net Income (Millions)	Net Income Per Common Share	Common Stock Dividend Per Share	Stock-holders' Equity (Millions)	Number of Employees (At Year End)
1945	$ 84.4	$ 8.3	$ 3.4	$ .31	$ .15⅝	$ 23.2	8,268
1950	109.3	13.4	12.5	1.19	.52¾	46.3	16,070
1955	244.5	21.2	19.3	1.49	.75	107.9	25,608
1959	381.4	33.3	29.4	2.10	.92½	187.2	36,216
1960	426.2	30.1	26.2	1.87	1.00	200.3	39,872
1961	470.2	27.3	24.9	1.74	1.00	235.6	45,076
1962	595.9	31.0	26.9	1.86	1.00	248.0	47,714
1963	648.5	37.8	34.7	2.41	1.00	268.0	48,585
1964	667.2	39.1	41.4	2.89	1.02½	294.6	50,768
1965	735.0	28.6	38.2	2.59	1.10	326.0	56,747
1966	914.4	41.9	45.3	3.07	1.10	356.0	64,148
1967	1,044.9	38.5	42.3	2.85	1.10	386.2	69,248
1968	1,281.3	56.6	50.5	3.41	1.10	421.6	74,483
1969	1,426.0	69.0	62.5	4.15	1.17½	494.1	81,520

NOTE: Per share data, which is computed on the basis of the average number of shares outstanding beginning with the year 1966 and on the basis of shares outstanding at year-end for prior years, is adjusted to reflect all stock splits.

NOTES TO FINANCIAL STATEMENTS

1. Basis of Consolidation

The financial statements include the accounts of Honeywell Inc. and all significant majority-owned subsidiaries, except non-consolidated finance subsidiaries whose combined balance sheet is on page 13.

The Company has adjusted its investment in non-consolidated finance subsidiaries to reflect the accumulated earnings of the subsidiaries. The income before taxes of non-consolidated finance subsidiaries, which is derived substantially from the Company, has been offset against interest expense in the summary of income. Related income taxes are included in the provision for Federal, state and foreign income taxes.

2. Property, Plant and Equipment

	1969	1968
Land	$ 10,578,768	$ 9,033,776
Buildings and improvements	104,602,449	87,719,184
Machinery and equipment	204,838,263	165,483,236
Equipment for lease to customers	418,505,652	324,318,115
Construction in progress	14,870,029	4,545,166
	753,395,161	591,099,477
Less accumulated depreciation and amortization	237,290,580	188,196,584
Property, plant and equipment—net	$516,104,581	$402,902,893

Depreciation expense is computed principally using the straight-line method.

3. Long-Term Debt

Honeywell Inc.:	1969	1968
Debentures:		
3.35% due 1971 to 1972	$ 6,810,000	$ 8,277,000
4% due 1971 to 1976	11,811,000	13,744,000
4½% due 1971 to 1986	19,411,000	20,731,000
4¼% due 1971 to 1988	25,500,000	27,710,000
5.60% due 1974 to 1992	60,000,000	60,000,000
Notes:		
5¾% due 1971 to 1978	925,000	1,040,000
4.55% due 1971 to 1990	50,000,000	50,000,000
Subsidiaries:		
Notes 6⅝% due 1971	15,000,000	15,000,000
Debentures 6% due 1971 to 1981	13,625,000	14,330,000
Convertible Debentures 5% due 1983	26,131,000	30,000,000
Bonds 5¾% due 1984	13,722,000	
Other	28,575,000	9,238,000
TOTAL	$271,510,000	$250,070,000

The 5% Convertible Debentures are convertible at principal amount into shares of Common Stock of the Company at any time, at the option of the holder, at a price of $103.25 per share. During 1969, $3,869,000 of Convertible Debentures were converted into 37,436 shares of Common Stock. The difference between the par value of the converted debentures and the Common Stock issued upon conversion totaling $3,807,674 was credited to Additional Paid-in Capital. The Company has reserved 253,121 shares for possible conversion of the Convertible Debentures outstanding at December 31, 1969.

Substantially all the long-term debt may be redeemed prior to maturity at the option of the Company at redemption prices up to 105% of the principal amount.

Annual sinking fund, maturity, and prepayment requirements for the next five years on long-term debt outstanding at December 31, 1969 are as follows:

1970 (Included in Current Liabilities)	$ 4,848,000
1971	21,246,000
1972	13,238,000
1973	27,083,000
1974	9,145,000

4. Stock Options

Under the stock option plans for officers and key employees of the Company and its subsidiaries, options to purchase Common Stock have been granted at 95% through April 30, 1964, and 100% thereafter, of the market price of the Common Stock at time of granting. There were outstanding at December 31, 1969 options covering 106,416 shares; options covering 1,345 shares were granted during 1969; 65,658 shares were issued during 1969 upon exercise of options; options on 3,220 shares were canceled; and at December 31, 1969 there remained 99,535 shares available for granting of options.

Under the Company's employee stock option plan, options have been granted to eligible employees of the Company and certain wholly-owned subsidiaries to purchase Common Stock at the lower of 90% of the market price of the Common Stock at time of granting or at the time options are exercised. During 1969, 265,436 shares were issued upon exercise of options. At December 31, 1969 there were 434,564 shares reserved for this plan.

The excess of consideration received over the par value of Common Stock issued upon exercise of stock options, which amounted to $23,330,569, was credited to Additional Paid-in Capital.

5. Accounting Practice

Leases to customers for computer systems are accounted for as operating leases, and the rentals under such leases are included in sales, service and rental income as earned over the term of the lease. Future rentals sold to non-consolidated finance subsidiaries as described in the financial review section of this report (page 9), have been credited to Deferred Rental Income and will be included in sales, service and rental income in accordance with the above method.

6. Leased Property

Minimum annual rental costs under noncancelable leases amounted to approximately $10,600,000 for leases outstanding at December 31, 1969 with initial lease periods ranging

from three to thirty years. The Company also has substantial rental commitments arising from the leaseback of computer systems sold to financial organizations; however, these costs are covered by rental income under subleases with customers.

7. Pension and Retirement Plans

The Company provides pension plans for both salaried and hourly-rated employees, financed solely by Company contributions. Contributions, which are equivalent to the provisions for pension costs, are transferred to a trustee who disburses benefits earned under the terms of these plans from trust funds so accumulated. During 1969 certain actuarial changes were made and in addition some benefits were increased. The result of these changes did not materially affect costs for the current year. Pension costs for the years 1969 and 1968, including amortization of prior-service costs on a thirty-year basis, were $14,250,000 and $14,200,000 respectively. The Company, under terms of the plans, may alter, suspend or discontinue the plans at any time.

All major subsidiaries of the Company provide pension plans for employees on terms consistent with practices in the country of operation. The cost of such plans approximated $2,360,000 and $1,900,000 in 1969 and 1968, respectively.

8. Income Taxes

The Company and its subsidiaries have made provision for deferred income taxes of $6,200,000 and $9,383,000 in 1969 and 1968, respectively, arising principally from deductions for tax purposes relating to depreciation expense and research and development costs related to computer systems which exceed the amounts recorded in the accounts.

The provision for income taxes has been reduced for the investment credit by $1,031,000 and $1,811,000 in 1969 and 1968, respectively.

9. Renegotiation

The Company has substantial United States Government contracts and subcontracts, the profits on which are subject to renegotiation. Final settlements have been made for all years prior to 1968. The Company does not anticipate that any refunds will have to be made for 1968 and 1969.

10. Litigation

The Company is involved in litigation relative to a computer patent held by a subsidiary of Sperry Rand Corporation. While the Company's management believes that the issues involved are of great importance, it is expected the matter will be resolved without a materially adverse effect on the Company.

HASKINS & SELLS

Certified Public Accountants

NORTHWESTERN BANK BUILDING • MINNEAPOLIS

To the Stockholders of Honeywell Inc.:

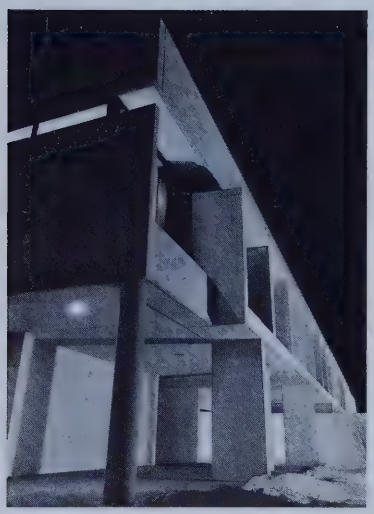
We have examined the balance sheet of Honeywell Inc. and consolidated subsidiaries as of December 31, 1969 and the related summaries of income and retained earnings for the year then ended. We have also examined the combined balance sheet of the Company's non-consolidated finance subsidiaries. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances; it was not practicable to confirm receivables from the United States Government but we carried out other auditing procedures with respect to such receivables.

In our opinion, the accompanying financial statements present fairly the financial position of Honeywell Inc. and consolidated subsidiaries at December 31, 1969 and the results of their operations for the year then ended and the financial position of the Company's non-consolidated finance subsidiaries at December 31, 1969, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

February 13, 1970

Haskins & Sells

Honeywell | 1969 | Operations of the Year



New office and factory of Commercial Division covers 278,000 square feet in Arlington Heights, Ill.

Automation and Controls for Homes and Buildings

World's largest office building, the Port of New York Authority's World Trade Center, has Honeywell controls and a DataCenter console linked to a computer monitoring more than 200 mechanical systems.

The functions our products perform in buildings and homes are similar, but they are marketed in two distinctly different ways.

Our Residential Division, where Honeywell began, serves the new home and modernization market and sells its products both to the manufacturer of heating and air conditioning equipment and to the heating and air conditioning wholesaler.

The Commercial Division operates as a contractor to design, manufacture and install controls for complete heating, air conditioning and building automation systems for large buildings.

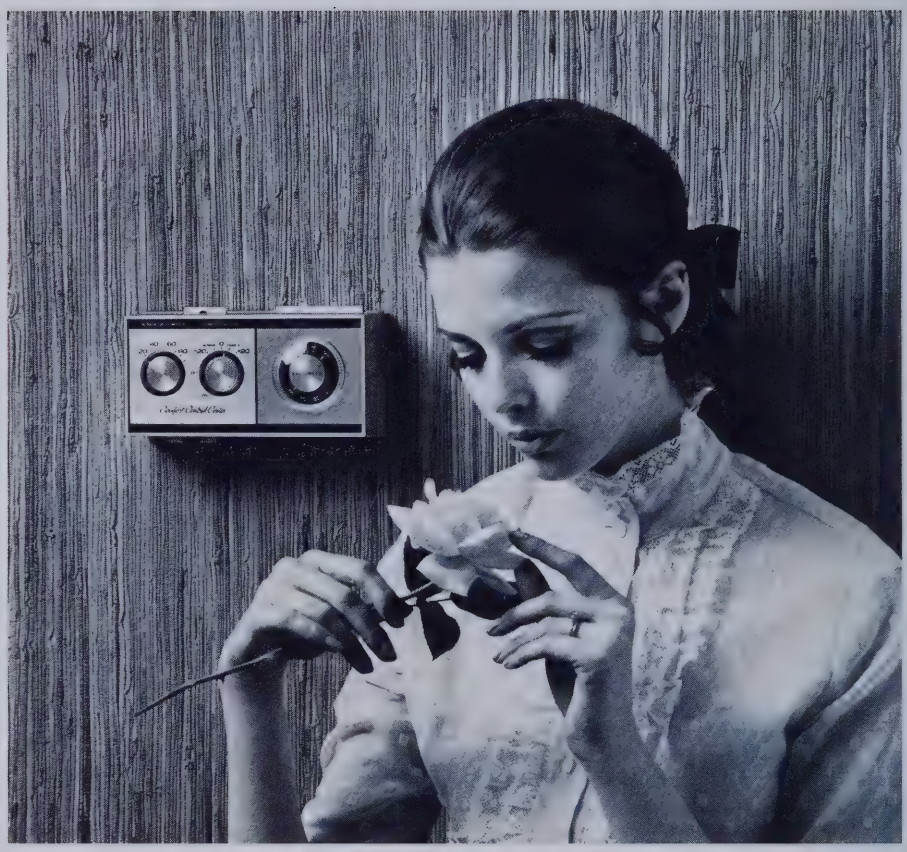
Performance was strong worldwide in the markets served by these divisions. Sales and service revenue was $329 million, a record high, and the year also closed with record backlogs. The sales increase was 13 percent over 1968 sales of $292 million.

It was significant that Residential Division sales continued strong throughout the year despite a sharp decline in the new housing market in the United States.

The lack of buoyancy in the new housing market has been partly offset by a number of favorable market influences. One factor is that frustrated potential home buyers, discouraged by continuing tight money, are spending money to make their current homes more comfortable. This results in substantial replacement and add-on business.

Another factor is the boom in mobile homes, which are not included in the housing start figures. This has become an important end market for our products.

New Comfort Control Center introduced by Residential Division provides centralized control of heating, cooling, humidification, air cleaning and household odors in one panel.



One of our fastest growing markets is for electronic air cleaners. The public has become increasingly conscious of air pollution and the fact that something can be done about it in their homes with an electronic air cleaner. Allergy sufferers in particular constitute a large market for air cleaners.

Residential air conditioning is another fast-paced market. We make key system components for both central and window units and consequently participate in this market in a significant way.

We have added a new dimension to total home comfort with the introduction of Scentrol, an odor control system that can be mounted on the furnace for whole-house control or used as an individual room unit. Based on a new concept, it breaks down odors chemically rather than simply masking them.

The outlook for the year ahead is for modest growth of our residential business, at a rate somewhat slower than in 1969. We believe housing starts in the United States will probably remain at about the 1969 level.

The Commercial Division had a very successful year. It was the year in which computerized building control, pioneered by Honeywell, really came of age. Our computerized building automation systems at Dallas Main Place and Houston Light and Power went into operation.

Work is under way on two major new structures that will have Honey-

well computers controlling building functions — the U. S. Steel headquarters building in Pittsburgh and the twin 110-story towers of the World Trade Center in Manhattan.

These buildings are the most sophisticated examples of building automation, a concept whereby many functions of a building are controlled from a central location. This has become a worldwide trend and is the most rapidly growing segment of the Commercial Division's business.

Another significant growth area for the Commercial Division is maintenance and repair. Building owners in growing numbers prefer contracting for these services to maintaining their own staffs for this purpose.

One aspect of building operation that is of increasing concern is protection from fire, theft and vandalism. We have developed a broad line of quality products in the protection field and a nationwide force of sales specialists. We expect this to be a rapid growth area.

A new 278,000-square-foot plant neared completion in Arlington Heights, Illinois, near Chicago to centralize the division's manufacturing and engineering operations, which were previously in leased locations in the Chicago area.

Commercial Division has been laying the groundwork for anticipated rapid growth in the years immediately ahead. There is impressive evidence that building construction will be one of the growth industries of the '70s both in the United States and overseas.

New solid-state transmitter relays readings of temperatures occurring in textile, chemical, petroleum and glass processes.

Automation for Industry

The industrial segment of our business consists of four divisions. The Industrial Division and Apparatus Controls Division design, manufacture and market controls and systems used largely in the process industries such as chemicals, mining, refining, paper, textile and steel. The Industrial Divi-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Honeywell VutroniK-line of miniature electronic process control instrumentation is compatible with computer or conventional control systems. More than 40 units and models make up the new line introduced in 1969.

sion in addition to manufacturing its products, contracts to design, install and maintain complete control systems.

The Test Instruments Division markets sophisticated instrument systems for test and research applications and medical electronics. It also operates a chain of metrology laboratories that repair and calibrate test instruments of any manufacturer.

The MICRO SWITCH Division markets a line of thousands of types of precision miniature switches for an almost limitless number of applications. They are sold largely to other manufacturers for installation on their products. In addition MICRO SWITCH is now heavily involved in furnishing keyboards for information transfer and communications applications closely allied with computers.

The industrial segment of our business worldwide made gains in both volume and profitability during 1969. Sales amounted to $239 million, up five percent over the year before when sales totalled $227 million.

Orders and backlogs of industrial control systems were up, both in the United States and abroad.

The pressures on industry to improve productivity are increasingly severe in the face of rising costs for both material and labor. The answer frequently is automation, using equipment of the type we provide.

The Industrial Division continued to emphasize the development and marketing of new products, and the expansion of its installation and service business.

The most significant product introduction was a solid state miniature electronic instrument line called VutroniK, which is aimed at helping industry cope with control problems that are becoming increasingly complex. It has a total process control capability for computer-oriented or conventional control systems. VutroniK was engineered and introduced on an international scale to meet varying worldwide standards and to serve global markets.

Another significant product introduced was an electronic water quality monitoring system which complies with rigid Federal Government specifications. It comes at a time when the need for automatic monitoring of the nation's rivers, lakes and streams is becoming more defined and the drive to abate water pollution is accelerating.

The division also stepped up its efforts in controls for industrial water and waste treatment and for industrial-type boilers. Both areas offer exceptional growth potential.

Contract instrumentation management activities, which involve the sale and installation of complete control systems and subsequent maintenance of these systems, continue to be an important segment of the division's

business. Honeywell pioneered this concept and it continues to gain in acceptance.

Billings and backlog for the Apparatus Controls Division were up for the year, but business indicators for the specialized industries this division serves are mixed. Some markets are strong while in others there are indications of a softening in business.

A potentially significant new product introduced by Apparatus Controls late in the year is a super-sensitive ultraviolet flame detector for industrial use. It has a wide variety of applications where constant surveillance for fire is required.

Sales of our Test Instruments Division were about level with a year ago. The lack of growth is attributable to the pattern of government spending. The type of sophisticated test instruments we produce find their principal use in government-supported research, development and engineering programs. Such programs have been curtailed in the past year and few new programs have been initiated.

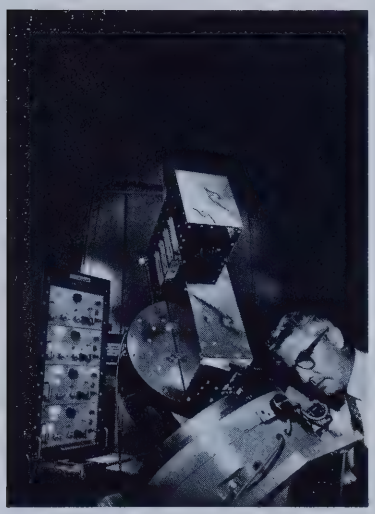
The service business has been a bright spot for Test Instruments. Our network of metrology centers around the country has enjoyed a growing business in the maintenance and repair of electronic instruments on a contract basis for a variety of instrument users.

MICRO SWITCH had an excellent year in sales and profitability in 1969 and finished with a record backlog. One of its great virtues has been its broad industrial base, which has enabled it to smooth out the cyclical moves in various of the markets which it serves. Because of this broad base and because of the component nature of its business, the division is our most sensitive barometer of broad business trends. As we progressed through the fourth quarter we viewed some leveling of orders for the tra-

Continued technological leadership in solid state keyboards is incorporated in the newest Micro Switch model with large-scale integrated encoding circuitry. Keyboards are used in communications and data-preparation terminals.

ditional line of switches, which undoubtedly reflects some of the concern business generally is expressing towards 1970.

Offsetting this possible leveling, if in fact it should continue to be reflected in first-quarter orders, is the aggressive move the division is making into the market for keyboards for information systems.



Star tracker built at Honeywell Radiation Center helped two Mariner spacecraft successfully fly by Mars in 1969.

Aerospace and Defense

Our aerospace and defense activity is a direct reflection of the high technology content of our business. We have the capability in several areas to furnish highly sophisticated systems to the Department of Defense. While profit margins are lower as a percentage of sales than the company average, our return on investment is satisfactory. It also is a source of technical and management know-how that is valuable throughout the company. Our activities are highly diversified, involving systems for all of the services, and the National Aeronautics and Space Administration.

In 1969 aerospace and defense volume remained level. Sales of $482 million compare to 1968 sales of $478 million. Aerospace and defense accounted for 34 percent of the company's total business, a decline of 3 percentage points from 1968.

During the decade of the Sixties, aerospace and defense volume accounted for one-quarter to one-third of total company sales. We anticipate that this will be the range in the years immediately ahead as we feel the influence of cutbacks in defense and space spending while other areas of our business grow rapidly.

We are expecting a decrease in volume in 1970 as a result of the deescalation of the Vietnam war and the lower levels of defense spending generally. The division most significantly involved in Vietnam production is Ordnance which produces a variety of ordnance devices. However, the division has a diversified business including the prime contract on the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FAIL
PUSH
TO TEST

Deliveries of a new digital air data computer began for the McDonnell Douglas DC-10 trijet, which will go into service in 1971. Production of other air data units continued at the Aerospace Division in Minneapolis.

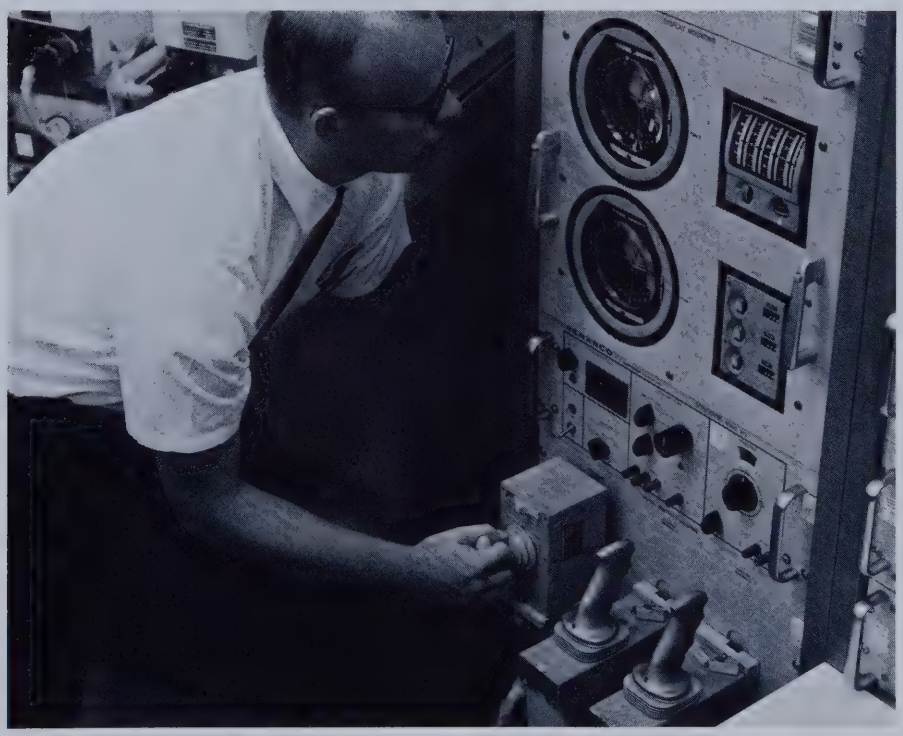
Mark 46 torpedo, a non-Vietnam-related program. In 1969 the Mark 46 program produced $80 million revenue.

Our accomplishments were highlighted during the year in space. The Apollo command module stabilization and control system, built by Honeywell as a major subcontractor to North American Rockwell, performed flawlessly in all four Apollo flights.

Honeywell hand controls, panel displays and indicators on the Grumman-built lunar module also worked perfectly. The precision-performance of the hand controls landed astronauts Neil Armstrong and Edwin Aldrin safely away from a rock strewn surface.

Looking toward the future in space, Honeywell is teamed with North American Rockwell on the Space Shuttle program with responsibility for stabilization and control, and guidance and navigation systems. In addition, we are teamed with McDonnell Douglas on the Space Station program with responsibility for the attitude reference and control system.

In the aircraft field there were significant developments, both commercial and military. In commercial aircraft, we won important contracts with McDonnell Douglas for equipment on the DC-10 jet transport, including a performance and failure assessment monitor that provides a multi-color television-like display of how the automatic landing system is working,



Final testing of the precision components making up the Apollo spacecraft stabilization and control system assures high reliability for lunar missions. System enables astronauts to maneuver either manually or automatically.

and the digital air data computer that provides vital flight data to thirteen systems aboard the aircraft.

An altitude alert indicator designed to meet new Federal Aviation Administration requirements was ordered by Boeing for factory installation on all standard 727 and 737 aircraft. The contract also included sup-

plying an altimeter that gives pilots both visual and audio signals when the aircraft approaches a pre-selected altitude level.

In military aircraft the most significant award was from Grumman Aerospace Corporation as prime airframe contractor for the Navy F-14. Honeywell won a contract for design and development of the automatic flight control system. The total contract could exceed $30 million. Production is scheduled to begin in 1971.

Another significant award—$40.2 million—was received in connection with a second source program for the Minuteman III guidance system.

Substantial progress was made in advancing our digital computer technology for aerospace applications. We now offer a line of six computers with a broad range of capability and highly advanced plated wire memories.

In research and development we are conducting a variety of projects at our various aerospace and defense technology facilities. These programs include basic systems analysis studies of military and space missions, advanced sonar and underwater research and state of the art development of infrared mapping systems.

A spectrum display being developed as part of research in digital data communications devices is inspected at the Data Systems Division Communications Center in St. Petersburg, Fla.

Computer and Communications

Computer and communications products and services continued to be the fastest growing major industry in the world. Our business is growing faster than the industry and our rate of profitability increase is exceeding our growth rate. We have chosen to market products and develop services for every aspect of this new computer and communications industry.

Worldwide we offer computers ranging from the "mini" to large business data processing machines. We supply a wide range of peripheral devices. In addition we offer time-sharing, software design, system design, service bureau functions and post graduate tuition education. All these activities are supported by our worldwide sales and service organization.

The broad stance that we have taken is significant. It means that we

H-316 "mini-computer" introduced by the Computer Control Division for real-time control, data acquisition and communications systems is the first under $10,000 from a major computer manufacturer.

can benefit from the total growth of the industry; and it means that we have the flexibility to adjust our product and service emphasis to changes in the marketplace.

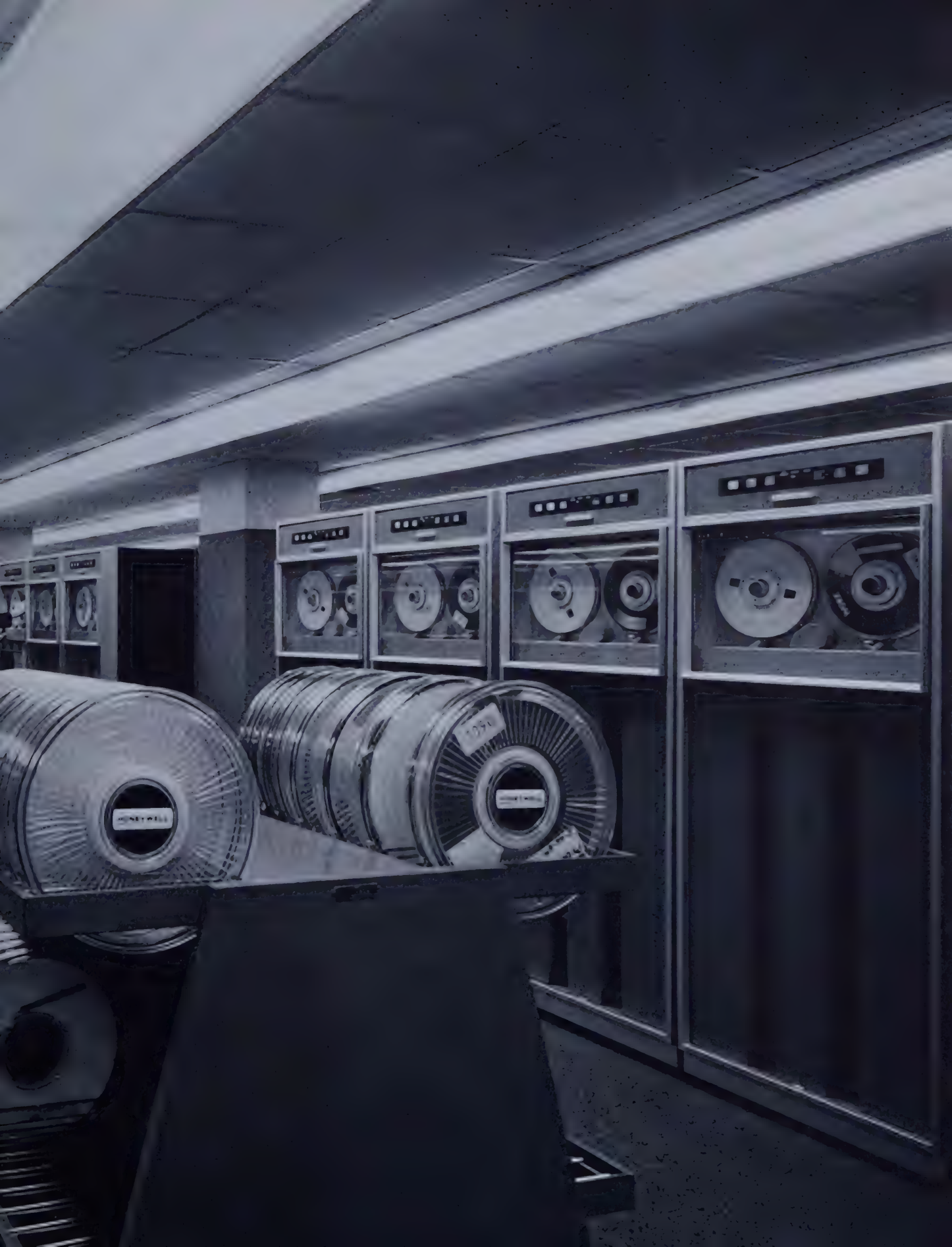
Worldwide sales and rental revenue of the Computer and Communications Group totaled $351 million, up 32 percent from the 1968 total of $265 million. We concluded the year with record backlogs. Both domestic and overseas operations increased in profitability.

At year end 1969 the value at sales price of actually installed equipment was approximately $1.5 billion, representing a 33 percent increase over last year. Of this figure about $900 million represents the value of computer equipment installed on a rental basis, an increase of 28 per cent over last year. Rental and maintenance revenue from computers was up 29 percent in 1969.

A significant development during the year was separate pricing by some companies for equipment, software, maintenance and training, commonly referred to as unbundling. The traditional industry practice has been to provide a total package of products and services for a single price. Our Electronic Data Processing Division stayed bundled, giving us a significant advantage in the marketplace at a time when it is generally accepted in the industry that separate pricing will raise costs for the user by as much as 25 percent over the long term.

Two major organizational steps were taken in 1969. In September we formed a new division to handle all aspects of our expanding international computer activities. The new International Computer and Communications Division directs Honeywell's computer activities in Europe, Latin America, the Middle East, Southeast Asia and Africa. In addition it lends

The 8200, Honeywell's largest computer system, performs business and scientific data processing tasks for Texas Eastern Transmission Company in Shreveport, La.



staff support to computer operations in Canada, Australia and Japan. Headquarters of the new division are in Wellesley Hills, Massachusetts, in close proximity to the Electronic Data Processing Division and the Computer Control Division. The other organizational step was to create

Keytape data preparation devices produced by the Data Products Division in an expanded San Diego plant.

three new divisions from the former Communications and Data Products Division and from elements of the Electronic Data Processing and Computer Controls Division.

The Data Systems Division, headquartered in Minneapolis, will concentrate on sales to the Federal Government through a regional network of sales offices, and on the development of large specialized data communications systems for the government and other customers.

The Data Products Division, headquartered in San Diego, produces and markets Keytape data preparation devices, disk packs, cathode ray tube displays, other terminal equipment and supplies.

The Tampa Division, located in Tampa, produces communications equipment and a broad range of electronic subassemblies for both government and commercial markets.

The Computer and Communications Group now comprises seven divisions, each with extraordinary growth potential in its segment of the market. Group marketing, administration and engineering functions have been established to coordinate activities of the divisions and avoid duplication of effort.

During 1969 our product line demonstrated its appeal in the marketplace by giving us our largest booking year.

Series 200, our line of business data processing machines, has been continually renewed through the addition of new processors and peripheral devices to the line and the steady infusion of new technology in an evolutionary way.

There will continue to be rapid technological advance as there has been in the past and Honeywell is determined to be at the forefront of that advance. In 1969 we spent over one half of the company's research, development and engineering dollar in the computer area of our business.

Our new largescale systems — the 4200 and 8200 — were well received. Our new 3200 medium-scale, communications-oriented computer brought significant bookings and there was continued strength throughout the low and medium end of Series 200.

Our introduction of a mini-computer, the 316, brought an extremely satisfactory market response.

In response to the way the market for smaller computers is developing, we are concentrating on customers who require computers in quantity. We have also taken steps to significantly increase our production capacity.

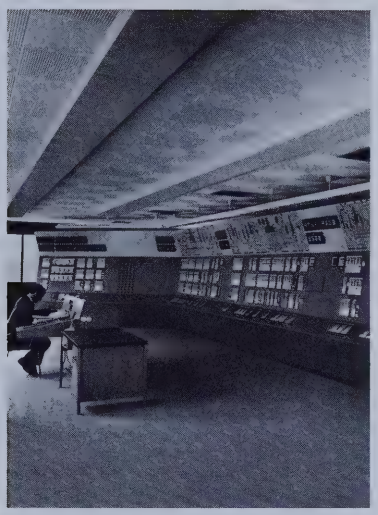
An interesting development has occurred in the industrial control field. Industry has seized upon the mini-computer as the means for easing into computerization and is using them in more limited applications than were considered possible in the past. For example, one of our customers is using a computer for tire balancing.

During 1969 our Information Services Division entered the computer services market by opening data service centers to distribute computing power and other computer services on a regional basis. Two types of remote access computing are sold: interactive time-sharing for the scientific and education markets, and remote job entry for business and industry. Both types utilize remote terminals connected to central processors by telephone or other data communications links. In addition the division markets software and systems design and computer facilities management. The division operates sixteen centers across the country.

Another new market entered in 1969 was computer education services. The Honeywell Institute of Information Sciences was formed in November to offer post-graduate and undergraduate tuition courses to men and women interested in careers in the computer industry.

The first classes were conducted at Wellesley Hills, Massachusetts. The program will be expanded nationwide in 1970 with classes opening in Los Angeles, Chicago and Atlanta, among other cities.

At year end worldwide employment in the Computer and Communications Group totaled 24,000, compared with 18,000 a year ago.



Electronic control panel built by Honeywell regulates processes throughout a Mobil Oil Company refinery in Amsterdam, The Netherlands.

International Operations

Honeywell has pursued international business since the early 1920's. Over the years we have developed a business philosophy based on self-contained, fully-integrated operations with management, engineering, manufacturing and marketing located in the major world markets. These operations are staffed almost entirely by citizens of the countries involved.

We have divided our operation into four regions under regional managers: Great Britain and Scandinavia with headquarters in London; Central and Southern Europe, the Mediterranean area and the Middle East headquartered in Brussels; a new region organized this year comprising the Far East, Australia, Southern Africa and Latin America with headquarters in Minneapolis; and the fourth region, Canada, based in Toronto.

Following our policy of building local capability and responsibility, our International headquarters' staff in Minneapolis was dissolved during 1969 and its functions transferred to the regions. Coordination of marketing, engineering and production was assigned to the domestic divisions.

Consolidated sales of the company outside the United States were $287 million in 1969, a 23 percent increase over the previous year.

Some highlights of the year include the formation of Honeywell Automation (Proprietary) Limited, our wholly-owned instruments and controls sales subsidiary which started business in the Republic of South Africa on September 1, 1969. In October we formed Honeywell Computers South Africa (Proprietary) Limited, a joint venture company with a South African partner, National Fund Investments Limited.

New Helsinki City Theatre features a Honeywell pneumatic temperature control system with 300 sensors and thermostats tied into a central DataCenter.

A contract was signed in March between Honeywell GmbH, Offenbach, West Germany and Dienes Apparatebau GmbH at Muehlheim/Main forming a new company, Dienes-Honeywell Holding GmbH, with Honeywell having a majority interest. The company produces draw twist machines and heaters and controls used in the manufacture of synthetic fibres.

We also entered a new venture in Canada by acquiring McQueen Sales


INSTANT SELF FOCUSING

New projector features brilliant preview window permitting viewing without screen for editing of slides.

Company Ltd. of Toronto and Vancouver, a leading Canadian photographic equipment distributor. McQueen will operate as an independent unit, continuing to sell a broad line of photo equipment and augmenting that line with sales and service of Honeywell photo products in Canada.

Factory expansions included the addition of 30,000 square feet to the facility in Emmen, The Netherlands, in order to meet the demand for gas heating controls for homes and apartments on the European continent. At Uddingston, Scotland 141,000 feet were acquired to house the Industrial Products Group manufacturing facilities in the United Kingdom. The added space increases the total number of square feet devoted to manufacturing of Honeywell products in Scotland to more than a million. Honeywell factories in Japan and Germany also were expanded to provide additional production space to serve the company's worldwide markets.

Overseas employment increased 19 percent in 1969. At year end there were 23,900 employed by Honeywell subsidiaries and affiliates outside the United States. Manufacturing space owned and leased increased to more than 2,000,000 square feet.

Auto-Strobonar 770 flash units roll off production line at Photographic Products Division plant in Denver.

Photographic Products

Our Denver-based Photographic Products Division represents Honeywell's participation in the rapidly growing consumer and leisure markets. We are the leading manufacturers of electronic flash equipment, and we are the exclusive U.S. distributor for the Asahi Optical Co. of Japan and its Pentax 35mm single lens reflex cameras and accessories, the movie cameras and projectors of the Elmo Co. of Japan and the cameras and accessories of Rollei-Werke of West Germany.

In 1970 sales of the products increased 32 percent over 1968, with new sales records being set on almost all product lines.

The most important accomplishment of the year was the introduction of a completely new Honeywell designed and manufactured line of 35mm

Sensors for measuring dissolved oxygen in rivers, lakes and streams undergo temperature calibration tests at the Industrial Division. They are used in water pollution control equipment.

slide projectors called the Preview series. The line has four models. All feature a brilliant screen that permits the operator to view slides without setting up a projection screen, to edit and load slides into the tray, and to correct upside down or backwards slides during projection.

Following two years of development, the projectors were marketed on a gradually expanding basis until, by year end, we had reached national distribution. The new line promises to establish Honeywell solidly as a major factor in the projector market in 1970 and adds substantially to our base of Honeywell products.

The new projectors are being manufactured in a separate Denver facility that was leased in May. The move to this plant was dictated by demand for the new projector and the need for more space for electronic flash production at the main plant in Denver.

Strobonar electronic flash units enjoyed their most successful year, further strengthening our position as the leader in the industry.

Our imported line of Honeywell Pentax 35mm single lens reflex cameras continued to be the best-selling fine cameras in the United States and in the world.

Our other imported Japanese line is Honeywell Elmo movie equipment. Sales increased in 1969. A new movie camera, the Super Filmatic 106, with a 6:1 power zoom lens, was introduced during the year.

It was a year of mixed results for the Rollei products. Sales of the traditional twin-lens reflex camera models continued to reflect the decline of the medium format camera market. The palm-sized Rollei 35, however, set a new record in its second full year of sales.

Air blast cleans silicon wafers being processed into microelectronic switching circuits at new Solid State Electronics Center in Minneapolis.

Science and Engineering

The twin thrusts of the Honeywell organization are technology and marketing. On the technology side, there are 10,000 Honeywell people occupied with research, development, and engineering.

In 1969 our research, development and engineering expenditures totaled

$143 million, $80 million company-funded and $63 million on work for the government. The company-funded portion increased 32 percent over the previous year.

We have a vast storehouse of technology. The challenge is to direct the movement of that technology toward the development of new products and new business opportunities that meet our criteria for growth and profitability.

There has been a common thread to our business. Basically we are an automation company whose products make people more productive. We see no need to alter that fundamental direction.

The concentration of research at our Corporate Research Center has been in areas which seem to us most likely to aid in the advance of the automation systems of the future and which have a high degree of relevance to our society.

Our major areas of investigation are magnetics, metallurgy, electro-optics, engineering physics, physical electronics, information sciences, chemistry and solid-state physics.

There are many recent examples of the effectiveness of our business-like approach to science and engineering. Utilizing the latest integrated circuits, we have developed a universal amplifier that can do the work of 75 to 80 separate amplifiers in a process control system, thus dramatically reducing system complexity and cost.

There have been two promising programs in the computer memory field. One is mini-wire, the diameter about that of human hair, which can store large amounts of computer data in a small space and has low power requirements. Second is the laser computer memory, in which a paper-thin metal disc $1\frac{3}{4}$ inches in diameter could contain 14 bibles in digital code.

Scientists probing the nature of flame developed a low-cost instrument that can detect the proportion of undesirable elements in automobile exhausts. The Honeywell exhaust emissions analyzer, as the instrument is called, enables trained service technicians to check the combustion process in an engine by measuring the concentrations of carbon monoxide and hydrocarbons coming out the tailpipe.

In the infrared detection field we have developed sensors with a wide variety of wave-length response. One such detector can see a match burning 100 feet away but is unaffected by direct sunlight. Another is used to measure the temperature of molten glass. Others are used in airborne scanners to create reconnaissance photos of the ground.

Our work in lasers resulted in perfecting a self-contained CO_2 laser for communications and data processing functions. Previous CO_2 lasers were restricted to stationary applications because of the requirements for ex-

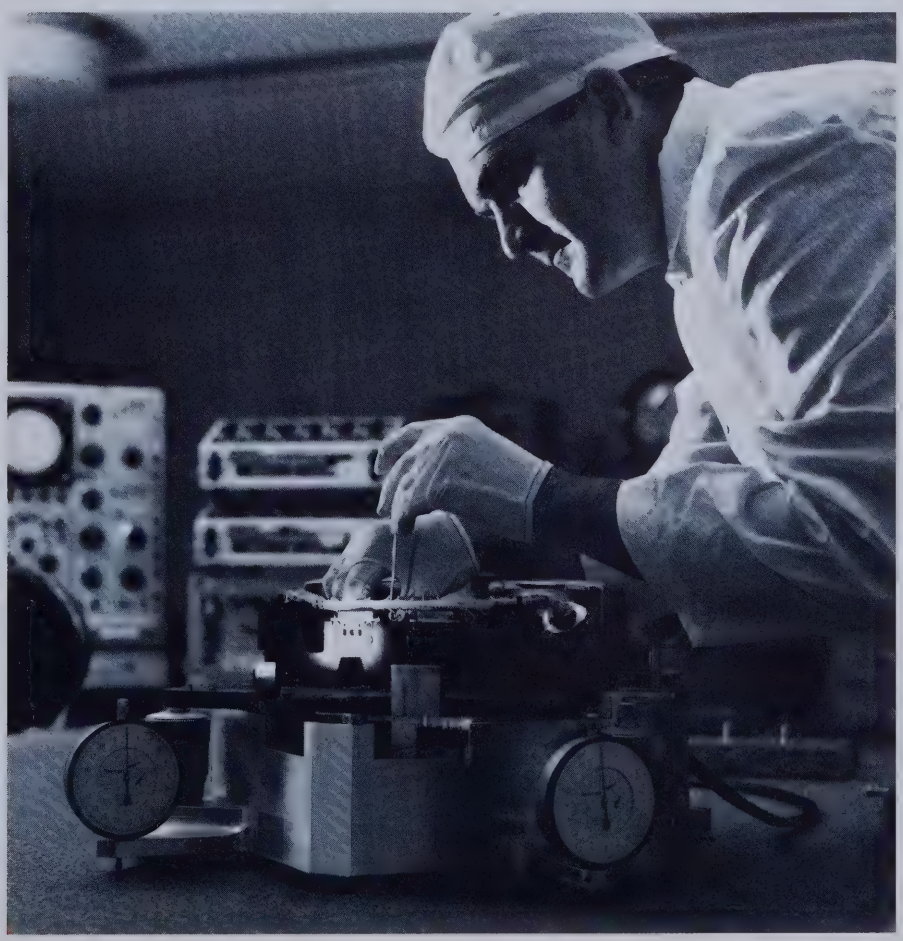
tensive support equipment. The Honeywell laser can be incorporated in mobile applications ranging from deep space systems to oceanographic research vehicles.

Our research, development and engineering activities are conducted through a worldwide network of laboratories and staffs maintained by our divisions and subsidiaries, supplemented by the Corporate Research Center, the Solid State Electronics Center and the Information Sciences Center, which was established in the Boston area to conduct basic research in advanced computer systems. There is continuous transfer of technology, products and services among these units.

In August the Solid State Electronics Center moved into a new home near Minneapolis, a 30,000-square-foot facility built especially for the development and pilot production of integrated circuits.

Plans were announced to relocate and expand the Corporate Research Center. We have purchased a 100,000-square-foot research center in a suburb of Minneapolis. It will give us almost twice the space we presently occupy for corporate research activity.

In another significant move we appointed a scientific attache to work with the academically-oriented research community in Europe.



Simulated sunlight enables technician to adjust fine sun sensor being fabricated at the Honeywell Radiation Center for a manned space observatory to be launched in 1972.

CORPORATE OFFICERS

James H. Binger, *Chairman of the Board*

Stephen F. Keating, *President*

Charles L. Davis, *Executive Vice President*

Edson W. Spencer, *Executive Vice President*

Herbert D. Bissell, *Vice President, Marketing*

John N. Dempsey, *Vice President, Science and Engineering*

Russell W. Laxson, *Vice President, Public Affairs*

James S. Locke, *Vice President*

E. C. Lund, *Vice President*

Edward R. Marshall, *Controller*

John W. Morrison, *Vice President and Treasurer*

Gerry E. Morse, *Vice President, Employee Relations*

W. T. Noll, *Vice President*

Clyde A. Parton, *Vice President*

Richard L. Post, *Secretary and General Counsel*

C. W. Spangle, *Vice President*

Edward C. Vorlander, *Vice President*

MARKETING EXECUTIVES

David C. Gerrish, *Vice President, Washington, D.C.*

Fred Kaiser, *Vice President, Southern Area – Atlanta*

G. M. Kingsland, *Vice President, Eastern Area – New York*

John P. McCardle, *Vice President, Midwest Area – Chicago*

J. Thomas Pitts, *Vice President, Southwestern Area – Houston*

Dean B. Randall, *Vice President, Merchandising*

C. Wheaton Vaughan, *Vice President, Business Development*

Russell H. Whempner, *Vice President, Western Area – Los Angeles*

Products, Principal Manufacturing Facilities and Management

Building Controls and Components Group

E. C. VORLANDER, Vice President and Group Executive

Residential Division: T. A. Reed, Vice President and General Manager — W. E. Petersen, Vice President, Marketing.

Electric and electronic systems and controls for heating, air conditioning and humidity control in residences, small commercial and industrial buildings and appliances; electronic air cleaners; odor control systems; flame safeguard systems. Manufacturing plants: Minneapolis, Minnesota — Los Angeles, California.

Commercial Division: S. J. Nelson, Vice President and General Manager — R. W. Crysler, Vice President and Sales Manager.

Pneumatic, electric and electronic control systems for heating, ventilating, refrigeration and air conditioning in commercial, institutional and industrial buildings; clock and program systems; fire detection and alarm systems; building security systems; building automation systems. Manufacturing plants: Chicago, Illinois — Wabash, Indiana — Akron, Ohio.

MICRO SWITCH Division: J. S. Locke, Vice President and General Manager — J. K. Lincoln, Vice President, Marketing.

Broad line of electrical products for commercial, industrial, military and aerospace applications, including precision snap-action, mercury, proximity and toggle switches; lighted and unlighted pushbutton switches; miniature and heavy-duty oil-tight manual controls; reed and solid-state keyboards; high performance servomotors. Manufacturing plants: Freeport and Warren, Illinois.

Industrial Products Group

C. A. PARTON, Vice President and Group Executive

Industrial Division: J. E. Myers, Vice President and General Manager — J. T. Teed, Vice President, Marketing — C. B. Thompson, Vice President, Operations.

Instruments to automatically indicate, record and control process variables; analog computers; sensors and industrial processing plant automation systems; industrial valves. Manufacturing plant: Philadelphia (Ft. Washington), Pennsylvania.

Test Instruments Division: H. D. Elverum, Vice President and General Manager — A. B. Dallas, Vice President, Marketing.

Production testing, research laboratory and medical surveillance instrumentation including Visicorder oscillographs, magnetic tape recorders, X-Y graphic recorders, signal conditioning equipment, data acquisition systems, digital multimeters, RF surveillance instrumentation, engineering and metrology services. Manufacturing plants: Denver, Colorado — Annapolis, Maryland.

Apparatus Controls Division: R. L. Fillmore, Vice President and General Manager.

Process control instrumentation; sensors to detect, measure and control temperature, humidity, chemical vapors, fire and water vapor transmission rate; automation systems for agricultural, commercial, laboratory and industrial equipment; machine tool and mobile equipment controls; industrial motors. Manufacturing plant: Minneapolis, Minnesota.

Aerospace and Defense Group

W. T. NOLL,
Vice President and Group Executive

R. J. CONDON,
Vice President, Marketing

Aerospace Minneapolis Division: E. H. Olson, Vice President and General Manager — A. W. Kelley, Vice President, Operations.

Aircraft and space vehicle flight control and stabilization systems, satellites, tactical avionics systems, air data systems, computer-automated airborne and ground-based support equipment, fuel management systems, radar systems, engine control systems, aircraft recognition lights, inertial sensors, northfinders, laser gyros. Manufacturing plant: Minneapolis, Minnesota.

Aerospace Florida Division: J. W. Anderson, Vice President and General Manager.

Gimballed and strapdown inertial guidance and navigation systems utilizing conventional, electrostatic and laser sensors; satellite navigation aids, general and special-purpose aerospace digital computers; plated wire memory stacks and systems; precision inertial components; low cost tactical gyros; precision azimuth alignment systems; meteorological instruments. Manufacturing plant: St. Petersburg, Florida.

Ordnance Division: L. E. Sheehan, Vice President and General Manager — G. W. Lillicrop, Vice President, Operations.

Army, Navy and Air Force weapon systems including aircraft dispenser systems, fuzing, mines, torpedoes, artillery/mortar/ rocket safety and arming systems, combat vehicle fire control systems, security systems, surface-to-surface missile warheads, ceramics, reserve batteries, microelectronics, special components. Laboratories and manufacturing plants: Minneapolis, Minnesota — Montgomeryville, Pennsylvania.

Systems & Research Division: V. W. Bearinger, Vice President and General Manager.

Systems analysis, design and development in integrated security systems, reconnaissance and surveillance systems, rotary wing and fixed wing avionics systems, electro-optical systems, infrared detecting and mapping systems, precision space instrumentation, night vision devices; applied research in life sciences, aerospace sciences, physical sciences, ordnance sciences. Laboratories: Minneapolis, Minnesota — Lexington, Massachusetts.

Marine Systems Center: T. F. Hueter, Vice President and General Manager.

Active and passive sonar systems, shipboard command and control systems, oceanographic sensors and buoys, digital fire control and display systems, training and simulation systems, signal processors for target detection and tracking, offshore position keeping and telemetry systems. Laboratories and manufacturing plants: Seattle, Washington — Los Angeles, California.

Computer and Communications Group

C. W. SPANGLE,
Vice President and Group Executive

E. C. LUND,
Vice President and Associate Group Executive

J. C. CHU,
Vice President Planning and Development

Electronic Data Processing Division: R. P. Henderson, Vice President and General Manager — C. J. Lynch, Vice President, Marketing — F. G. Miller, Vice President, Operations, and Assistant General Manager.

Complete line of data processing systems, terminal equipment and programming support for commercial, industrial, scientific and government use. Third generation Series 200 family of ten computers; high speed computer printers; magnetic tape, paper tape and punched card equipment; optical reading devices; mass memory storage units; communications terminals; graphic display units; consumable supplies; programming aids; tuition education programs in computer management and information sciences, tuition-paid executive seminars and instructional materials. Laboratories and manufacturing plants: Wellesley Hills (Headquarters), Billerica, Brighton, Lawrence, Lowell, Natick and Waltham, Massachusetts. Schools: Atlanta, Georgia — Chicago, Illinois — Los Angeles, California — Wellesley Hills, Massachusetts.

Computer Control Division: T. P. Bothwell, Vice President and General Manager — T. C. Cronin, Vice President, Marketing and Planning — N. D. Morrison, Vice President, Operations.

General-purpose digital computers and mini-computers for both end users and original equipment manufacturers including time sharing, industrial control and communications control computers and software; digital controllers; integrated-circuit logic modules; high speed magnetic memory systems; programming aids; systems for scientific, simulation, mathematical and general-purpose computation. Laboratories and manufacturing plants: Framingham and Marlboro, Massachusetts — Peterborough, New Hampshire.

Information Services Division: C. H. Smith, Vice President and General Manager.

Full range of information services to computer owners and non-owners including contract software, time sharing, machine time, remote access, remote job entry, consultation, comprehensive facilities management. Regional data centers: Atlanta, Georgia – Boston, Massachusetts – Chicago, Illinois – Cleveland, Ohio – Dallas, Texas – Detroit, Michigan – Houston, Texas – Los Angeles, California – Minneapolis, Minnesota – New York, New York – Philadelphia, Pennsylvania – San Francisco, California – St. Louis, Missouri – Tampa, Florida – Washington, D.C.

Data Systems Division: J. J. Renier, Vice President and General Manager.

Research and development of advanced systems in the areas of communications, medicine and manufacturing; electronic equipment including multiplexers, modems, vocoders, transponders, termination units, voice processors and switches; design and manufacture of special purpose terminal equipment; sale of all Computer and Communications Group products and services to the Federal Government and special systems customers involving non-standard hardware/software systems. Major locations: Minneapolis, Minnesota (Headquarters) – Washington, D.C. – St. Petersburg, Florida.

Data Products Division: W. R. Willmert, Vice President and General Manager.

Primary data terminal products including direct key-to-tape (Keytape) data preparation units, attachments for communicating and data readout and multi-station key input systems with processor control; disk pack equipment and computer supplies; research and development in computer information display devices and new data preparation systems. Manufacturing plant: San Diego, California.

Tampa Division: A. R. Perry, Vice President and General Manager.

Production engineering and manufacture of defense and commercial electronic equipment including digital communications devices, uhf-vhf radios, transceivers, multiplexers, modems, transponders, key generators, controllers, electronic cash registers and switches; design and manufacture of production test equipment, multilayer printed circuit board assemblies, power supplies. Manufacturing plant: Tampa, Florida.

International Computer and Communications Division: A. L. Rudell, Vice President and General Manager—D. F. Brosnan, Vice President, Marketing.

Worldwide engineering, manufacturing, marketing and servicing of products developed by the domestic divisions of the Computer and Communications Group. Headquarters: Wellesley Hills, Massachusetts. Engineering and manufacturing facilities: Bowmanville, Ontario – Heppenheim, Germany – Newhouse, Scotland – Hemel Hempstead and Slough Bucks, England – Tokyo, Japan. Sales offices: Austria, Australia, Belgium, Canada, Denmark, France, Germany, India, Italy, Japan, Luxembourg, Mexico, the Netherlands, Spain, Sweden, Switzerland, United Kingdom.

International Operations

International Operations: P. W. Felt, Vice President, Engineering and Manufacturing—L. F. Wills, Chairman of the Board and R. J. Bilodeau, President, Honeywell Controls Limited, Canada—C. B. Meech, Vice President, Far East, Australasia, Latin America, South Africa—O. E. Powers, Vice President, Central and Southern Europe—L. R. Price, Vice President, Northern Europe.

An organization of subsidiaries, affiliates and distributors providing customers throughout the world the same products and services offered by Honeywell in the United States.

Companies in Argentina, Austria, Australia, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Hong Kong, Italy, Japan, Mexico, the Netherlands, Republic of China, Republic of South Africa, Spain, Sweden, Switzerland, United Kingdom, Venezuela; distributors in other countries; sales and service offices in major cities of the world. Manufacturing plants: Sydney, Australia – Toronto, Ontario, Canada – Taipei, Republic of China – London, England – Newhouse, Scotland – Amiens, France – Frankfurt, Germany – Tokyo and Fujisawa, Japan – Mexico City, Mexico – Helsinki, Finland – Emmen, the Netherlands – Madrid, Spain.

Photographic Products

Photographic Products Division: R. L. Pennock, Vice President and General Manager.

Complete line of quality photographic products and accessories including Honeywell Pentax cameras and Takumar lenses, Honeywell Elmo movie cameras and projectors, Rollei 35 compact cameras and other Rollei products, Strobonar electronic flash equipment, flash guns, Preview slide projectors, color slide duplicating equipment, darkroom equipment. Manufacturing plant: Denver, Colorado.

Science, Engineering and Business Development

Corporate Scientific and Engineering Facilities: J. N. Dempsey, Vice President, Science and Engineering.

Basic research in all applicable sciences, application of emerging solid state technologies to divisional product requirements, investigation of advanced computing system concepts. Corporate Research Center: Minneapolis, Minnesota – Solid State Electronics Center: Minneapolis, Minnesota – Information Sciences Center: Cambridge, Massachusetts.

Business Development Department: C. W. Vaughan, Vice President, Business Development.

Corporate strategy and planning, new business ventures, acquisitions. Offices: Minneapolis, Minnesota.

Transfer Agent: Morgan Guaranty Trust Company, New York

Registrar: Manufacturers Hanover Trust Company, New York

59-1028 Printed in U.S.A.

Honeywell Inc., 2701 Fourth Avenue South, Minneapolis, Minnesota 55408